ABSTRACT

Test circuitry for supporting real-time testing of data exception software may be included on an integrated circuit. The circuitry supports the identification of a data unit or data group other than a next data unit or data group to be transferred in a data sequence and the generation of an erroneous data verification parameter that does not verify the data content of the identified data unit or data group. The identified data unit or group is later transmitted with the erroneous data verification parameter in real-time following the transmission of other data units and/or data groups having valid data verification parameters. In this manner, a data receiver may be tested to verify the detection of a data content error in real-time and the execution of the software or firmware for processing an exception may be verified. Circuitry for implementing the method of the present invention may be included on the substrate of an integrated circuit. Test circuitry to implement the method of the present invention includes a data unit identifier for identifying a data unit or group within an integrated circuit and a data verification parameter generator for generating a data verification parameter that does not correspond to the data content of the identified data unit or group. The parameter generator may generate an erroneous data verification parameter for storage or transfer with the identified data unit or group. Data units may be identified for erroneous data verification parameter generation by data content or position in a data sequence.